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FINAL PERFORMANCE REPORT

Grant Number: NAGW-3392
Grant Title: *Spectroscopic Determination of Outer Solar System Composition*
PI: Dr. Keith Noll
Institution: Space Telescope Science Institute
Grant Period: 01/01/93 - 12/31/95

This grant supported a wide variety of ground-based infrared observing projects. The main results are:

Detection of a new spectral window in Titan and first measurement of 3-4um spectrum of Titan.

- abstract and presentation given at 1993 DPS meeting
- paper in preparation

Detection of H₂ 18O in Jupiter.

- paper published in ApJ Letters (1995).

Observations of Jupiter after SL9 searching for CO produced by the impacts. CO was not found in the deep atmosphere indicating that the CO seen at higher altitudes did not extend to the troposphere. Enhanced stratospheric CO allowed for at least some CO emission observed at 2um to be due to endogenic CO.

- four observing trips to Mauna Kea
- one paper collaborative trip to Erie, PA
- abstract at 1995 IAU Colloquium 156
- two papers submitted to Icarus, one more in preparation

Observations of 4um spectrum of Jupiter and Saturn

- paper submitted to Icarus

There were no inventions or patents developed under this grant.

Bibliography

NNGW-BIB

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ABSTRACTS

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